

NON-PUBLIC?: N
ACCESSION #: 9206110030
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Peach Bottom Atomic Power Station - PAGE: 1 OF 03
Unit 3

DOCKET NUMBER: 05000278

TITLE: Intermediate Range Monitor Spike which resulted in a Reactor
Scram due to a Defective Undervessel Connector
EVENT DATE: 05/04/92 LER #: 92-003-00 REPORT DATE: 06/03/92

OTHER FACILITIES INVOLVED: DOCKET NO: 05000

OPERATING MODE: N POWER LEVEL: 001

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR
SECTION:
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: Albert A. Fulvio, Regulatory TELEPHONE: (717) 456-7014
Supervisor

COMPONENT FAILURE DESCRIPTION:
CAUSE: SYSTEM: COMPONENT: MANUFACTURER:
REPORTABLE NPRDS:

SUPPLEMENTAL REPORT EXPECTED: NO

ABSTRACT:

On 5/5/92 at 1230 hours, the Reactor Protection System (RPS) initiated a full reactor scram signal. The full reactor scram was a result of a "B" RPS channel half scram signal in conjunction with a "A" RPS channel half scram signal already inserted. The "B" RPS channel half scram signal was a result of a "B" Intermediate Range Monitor (IRM) failed upscale. The "A" RPS channel half scram was previously inserted due to having two IRMs in the "A" RPS channel inoperable. The cause of the "B" IRM channel spiking was low insulation resistance in the signal channel which was traceable to foreign material in the undervessel cable connector. Current-Voltage and Time Domain Reflectometry measurements were performed on all defective IRM channels. A quality improvement team had been formed to address chronic Nuclear Instrumentation failures. No actual safety consequences occurred as a result of this event. No previous

similar LERs have been identified.

END OF ABSTRACT

TEXT PAGE 2 OF 3

Requirements for the Report

This report is submitted to satisfy the requirements of 10 CFR 50.73(a)(2)(iv) due to an unplanned Engineered Safety Feature Actuation.

Unit Conditions at Time of Event

A Unit 3 Shutdown with control rods was in progress and Reactor power was approximately 1%. There were no other systems, structures, or components that were inoperable that contributed to the event.

Description of Event

On 5/4/92 at 1952 hours, the Reactor mode switch was moved from the RUN to STARTUP position during a Shutdown with control rods for maintenance activities. An "A" Reactor Protection System (RPS) (EIIIS:JC) channel half scram was manually inserted due to two inoperable Intermediate Range Monitors (IRM) (EIIIS:MON) in the "A" RPS channel. The "A" RPS channel half scram was inserted per the Technical Specifications since the minimum number of operable IRMs could not be maintained.

On 5/5/92 at 0230 hours, the RPS initiated a full reactor (EIIIS:RCT) scram signal. The full reactor scram was a result of a "B" RPS channel half scram signal in conjunction with a "A" RPS channel half scram signal already inserted. The "B" RPS channel half scram signal was a result of a "B" IRM failed upscale. The NRC was notified of the event via ENS at 0255 hours.

Cause of Events

The cause of the event has been determined to be a spike of the "B" IRM while the "A" RPS channel half scram signal was already inserted.

The cause of the "B" IRM channel spiking was low insulation resistance in the signal channel which was traceable to foreign material in the undervessel cable connector.

Analysis of Event

No actual safety consequences occurred as a result of this event.

The actuation functioned properly during this event. Had an IRM failure occurred during a higher level of power operation (RUN Mode), no scram would have occurred since the IRMs would have been bypassed.

TEXT PAGE 3 OF 3

Corrective Action

Current-Voltage and Time Domain Reflectometry measurements were performed on all defective IRM channels. Defective detector and undervessel connectors were replaced prior to returning the IRM channels to operable status.

A Quality Improvement (QI) Team had been formed early in the year to address chronic Nuclear Instrumentation failures. Recommendations from the QI Team will be reviewed and implemented as appropriate.

Previous Similar Events

No previous similar LERs have been identified involving IRM spiking due to defective undervessel cable connectors.

ATTACHMENT 1 TO 9206110030 PAGE 1 OF 1

CCN 92-14070

PHILADELPHIA ELECTRIC COMPANY

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KEN POWERS

PLANT MANAGER

June 3, 1992

Docket No. 50-278

Document Control Desk
U. S. Nuclear Regulatory Commission

Washington, DC 20555

SUBJECT: Licensee Event Report
Peach Bottom Atomic Power Station - Unit 3

This LER concerns an Intermediate Range monitor spike which resulted in a reactor scram due to a defective undervessel connector.

Reference: Docket No. 50-278
Report Number: 3-92-003
Revision Number: 00
Event Date: 05/05/92
Report Date: 06/03/92
Facility: Peach Bottom Atomic Power Station
RD 1, Box 208, Delta, PA 17314

This LER is being submitted pursuant to the requirements of 10 CFR 50.73(a)(2)(iv).

Sincerely,

cc: J. J. Lyash, USNRC Senior Resident Inspector
T. T. Martin, USNRC, Region I

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